

**\*QUALITY ASSURANCE PROVISIONS****C-321: SPECIFICATION:**

NSN: 9Z 5315-01-159-4693 VH, P/N: (78286) 70108-28061-103 Revision "D",  
NOMEN: Pin, Pitch Lock Assembly-Rotary Wing Head  
[APPLICABLE CLAUSES: SH-60B, Helicopter]

Articles to be furnished hereunder shall be manufactured, tested and inspected in accordance with drawing number (78286) 70108-28061-103 Revision "D", and all details and specifications referenced therein.

**I. Quality/Inspection Requirements**

- A. MIL-I-45208 applies: or ISO 9000 Equivalent Refer to contract section E.
- B. First Article Testing applies: Refer to contract section I
- C. Production Lot Testing applies: Refer to contract section C
- D. Mandatory Inspection applies: Refer to contract section C.

**II. Supplemental Requirements**

A. Additionally, para. 3.1-3.5, 5.1-5.2, 6.1-6.2 of MIL-Q-9858 apply or ISO 9000 equivalent.

B. The contractor shall include on the detailed process/operation sheets developed, all in house manufacturing processes and the identity of all manufacturing sources performing processes/ operations outside of their facilities. These sheets shall not be revised or altered after the successful completion of First Article or Production Lot Testing without approval from the basic design engineering activity via the PCO

C. The Inspection Method Sheets which list the characteristics of each item produced under the contract shall have serial number traceability to the raw material, casting, or forging.

D. Markings should be I/A/W MIL-STD-130 REV. "J" para. 5.3.3(a), (b), (c) and (g). Method and location shall be I/A/W drawing.

**III. Mandatory Inspection Requirements:**

During production, mandatory inspection is required to be accomplished by the contractor as follows:

**A. Level of Inspection (LOI).**

- 1) Critical Characteristics: 100% inspection shall apply.
- 2) Major and Minor Characteristics - LOI shall be I/A/W a sampling plan acceptable to the QAR.

**B. Critical Characteristics**

- 1) Sikorsky Aircraft Drawing (78286) 70108-28061-103 Revision "D",
  - a. Zone B-5 .4375-12 ACME-3C Thread Class Centralized Per-STD-H28/12,  
Major Dia .4375/.4365 Pitch Dia .3921/.3862 Minor Dia .3442/.3353
  - b. Zone B-5 .310/.309 Dia @ E .001 Dia
  - c. Zone B-6 .310 Dia @ C .010 Dia
  - d. Zone B-8.976/.975 Dia
  - e. Zone C-4 63/RMS Surface Finish
  - f. Zone D-6 .8868/.866 Dia @ C .002 Dia
  - g. Heat treat the "-103" Per note 3 in Field Drawing
  - h. NDI Per SS 8805, note 4 in Field Drawing
  - i. Passivate Per SS 8435 Zone A-8 of Field Drawing

**C. Major and Minor Characteristics**

- 1) Shall be defined by the contractor subject to QAR concurrence, unless defined on applicable drawings and associated specifications.

**IV. Unless expressly provided for elsewhere in this Clause, equipment such as fixtures, jigs, dies, patterns, templates, mylars, special tooling, test equipment, or any other manufacturing aid required for the manufacture and/or testing of the subject item(s) will not be provided by the Government or any other source and is the sole responsibility of the contractor. The foregoing applies notwithstanding any reference to such equipment or the furnishing thereof that may be contained in any drawing or referenced specification.**

**I-961 FIRST ARTICLE TESTS REQUIRED (GOVERNMENT TESTING)**

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**I. First Article Inspection/Test Criteria:**

The tests to be performed under the First Article approval clause of the contract are:

A. Dimensional Check (special)

B. Form/Fit

C. Function

D. Compliance with drawing (78286) 70108-28061-103 Revision "D", and specifications referenced therein.

E. Review documentation as provided under DD 1423 requirements.

In addition to the above tests, the First Article(s) to be delivered hereunder shall also be subjected to those tests which will demonstrate that the article(s) comply with contract requirements.

The contractor shall be responsible for providing necessary parts and repair of the First Article Sample(s) during testing.

**II. Samples to be submitted for testing: Quantity 3.**

A. Estimated Cost: \$1,500.00.

B. Waiver of First Article Testing Requirements may be granted for (78286) Sikorsky Aircraft Division.

**III. Testing shall be performed at the Government designated facility listed below.**

Naval Aviation Depot  
F.A.T. Control Center  
Code 6.1.523 PSC Box 8021  
MCAS Cherry Point, NC 285533-5030

**IV. Special Instructions**

- A. Sample(s) may be considered as production items under the contract provided the sample(s) can be refurbished to ready for issue (RFI) condition and provided the sample(s) have inspection approval of the cognizant QAR. Sample(s) may be shipped as production items only after all other units required under the contract have been produced and are ready for shipment.**
- B. Sample(s) will be returned to the contractor, if not destroyed in testing.**
- C. Sample(s) is to be unpainted. Corrosive areas are to be coated with a light preservative.**
- D. The successful offerer will be furnished a sample to serve as an aid in manufacturing. Any alleged conflict between the sample and the applicable drawings/specifications shall be promptly reported in writing to the contracting officer.**
- E. Following production of all items under the quantity requirements of the contract, the contractor will be responsible to return the Government furnished sample in ready for issue (RFI) condition to the Government.**
- F. The contractor will be responsible to return the Government furnished sample in Ready For Issue (RFI) condition to the Government within the following specified timeframe: 15 days.**

**G. Estimated Production Leadtime Schedule:**

- 1) Submission of the First Article samples by the contractor - 360 days.
- 2) Analysis of report and notification to contractor - 90 days.
- 3) Production delivery after First Article acceptance - 200 days.
- 4) Total accumulated calendar days - 650.

**NOTIFICATION OF SHIPMENT OF MATERIAL FOR GOVERNMENT TESTING**

Fourteen (14) days prior to shipment of First Article Sample(s), the contractor shall notify the designated test facility, in writing of the anticipated shipping date, with an information copy to the PCO, Attn: 0733. The contractor shall also arrange for preliminary inspection of test samples by the CAO/QAR. Upon shipment of First Article Sample(s), two (2) copies of the Material Inspection and Receiving Report (DD Form 250), bearing the QAR's signature and indication of preliminary inspection, shall be forwarded to NAVICP Code 0733, with duplicate copies to NAVICP Code 0733 and to the designated test facility. The envelopes shall be clearly marked. "DO NOT OPEN IN MAILROOM".

Within 15 days after receipt of sample(s) the test site shall complete testing/evaluation and submit two (2) copies of their test report with conclusions and recommendations to NAVICP Code 0733.

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**PRODUCTION LOT TESTING REQUIREMENTS**

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The material produced under contract shall be accepted by the cognizant CAO/QAR contingent upon the successful completion of these requirements.

**I. Production Lot Test Sampling Requirements**

A. The cognizant CAO/QAR shall select (2) item(s) at random from the first (001) produced. In addition the QAR shall select (2) items(s) at random from each successive lot or portion thereof.

B. The cognizant shall inspect the first production item. In addition the first production item from each successive lot shall be inspected by DCMAO.

C. Production Lot Testing to be completed during production after First Article approval.

D. Sample(s) are to be unpainted. Corrosive areas are to be coated with a light preservative.

**II. The tests to be performed under the Production Lot Sample testing provisions of the contract are:**

A. Compliance with drawing (78286) 70108-28061-103 Revision "D", and specifications referenced therein.

B. Form/Fit

C. Dimensional Check

D. Review of documentation as provided under CDRL (DD1423) requirements.

In addition to the above tests, the Production Lot Samples(s) to be delivered hereunder shall also be subjected to those tests which will demonstrate that the sample(s) comply with contract requirements.

**III. Testing Location, Cost and Estimated Leadtime**

- A. All testing to be accomplished at contractors facility.
- B. Ship samples/data to NAVICP-PHIL 0733 and NADEP CHERPT 6.1.523.
- C. Estimated Cost for Inspection/Test is \$900.00.
- E. Estimated Leadtime for Inspection/Test is 45 days.

Within fifteen days of completion of Production Lot Testing, NAVAVNDEPOT, Cherry Point, NC and/or CAO/QAR shall prepare and submit two copies of their test report with conclusions and recommendations to the Contracting Officer.

**IV. NOTIFICATION OF TESTING:**

The contractor shall notify the PCO, ACO and QAR prior to conducting Production Lot Tests so that the Government may witness such testing.

A. The QAR shall be present to witness all Production Lot Tests.

B. The following additional personnel shall witness Production Lot Testing.

- 1) NAVICP-PHIL Equipment Specialist
- 2) NADEP-CHERPT Quality Assurance
- 3) NADEP-CHERPT E&E
- 4) DSCP Equipment Specialist

**C-331     PRODUCTION LOT SAMPLE TESTING [CONTRACTOR TESTING]**

A. The Production Lot Samples shall be selected at random by the cognizant government inspector. The samples shall be identified by contract number, lot number and be clearly marked as follows:

**PRODUCTION LOT TEST SAMPLES  
NOT RFI MATERIAL  
DO NOT TAKE UP IN STOCK**

B. Such samples shall be tested in sufficient time prior to the delivery date of the production articles to allow a 15 day period for testing and written notification by the contracting officer of the approval or disapproval of the samples. Within 15 days of the receipt of the samples, the CAO shall notify the contracting officer, Naval Inventory Control Point, Phila. PA code 0733, of the results of the testing, together with a recommendation for approval or disapproval.

C. In the event the contractor does not receive written notification of approval or disapproval of the samples for a particular production lot within 60 days from their submission for such testing, the contract delivery schedule shall be equitably adjusted as necessary.

D. If the contractor fails to deliver any Production Lot Samples for testing within the time or times specified, or if the contracting officer disapproves any Production Lot Samples, the contractor shall be deemed to have failed to make delivery within the meaning of the default clause of this contract, and this contract shall be subject to termination for default.

E. In order for a Production Lot to be acceptable, all samples representative of the lot must pass all the contract requirements. In the event a sample fails to pass such requirements, the lot will be rejected. In such event, the government may, at its option and at no additional cost to the government, (I) terminate all or any portion of this contract for default, (II) require the manufacture of a new Production Lot, or a rework of the rejected Production Lot if the means and procedures proposed by the contractor for rework are acceptable to the government, or (III) require the submission of additional samples for test. The foregoing procedures shall apply to new or reworked production lots in the same way as they did to the original Production Lot.



F. For each additional sample or each resubmission of a modified sample which the contractor is required to submit for approval hereunder as a result of a failure of a previous sample to conform to the requirements of the specification, the contractor shall pay to the government the costs of reinspection, examination and retesting and the contractor and his sureties (if any) shall be liable for the amount of such costs.

G. Nothing contained in the foregoing provisions of this clause, and no action of the government in accordance herewith, shall in any way prejudice the right of the government under the clause of this contract entitled Default.